

REMARKS

This Amendment is filed in response to the Final Office Action mailed June 22nd, 2005. All objections and rejections are respectfully traversed.

Claims 1-22, 38, 40, 41, 43, 44 and 46 are pending in the case.

No claims have been amended.

No new claims have been added.

Claim Rejections – 35 U.S.C. §102

At paragraph 3 of the Final Office Action claims 1, 3,8-12, 14-22, 38, 40-41, 43-44, and 46 were rejected under 35 U.S.C. §102(b) as being unpatentable over Burton et al., US Patent Publication No. 2003/0074527, filed on filed Oct. 21st, 2001 (hereinafter “Burton”).

As a preliminary matter, rejection of Applicant’s claims under 35 U.S.C. §102(b) is improper. Burton was filed Oct. 21st, 2001, approximately one month before Applicant’s filing date of Nov. 13th, 2001. Accordingly, Burton does not satisfy 35 U.S.C. §102(b). The Applicant assumes this was a typographical error and the Examiner intended §102(e). To advance the prosecution of this case, Applicant will prospectively argue Burton as if used under 35 U.S.C. §102(e). While the Applicant does not admit Burton has actual prior art status, even assuming arguendo Burton is prior art, the reference would not anticipate or make obvious the Applicant’s claims as explained below.

At paragraphs 1 and 2 of the Final Office Action the Examiner interprets Burton's "equal number of disk drives in each span of the array" as the same as the Applicant's "balanced" array. To support such interpretation, the Examiner cites *In re Morris* that holds claims should be given their "broadest reasonable" interpretation by the PTO (emphasis added). Yet, a "reasonable" interpretation may not contradict definitions provided in the Applicant's specification. The Applicant respectfully directs the Examiner's attention to the rest of *In re Morris* that explains the requirements of a "broadest reasonable interpretation" (emphasis added), in part stating:

Since it would be unreasonable for the PTO to ignore any interpretive guidance afforded by the applicant's written description, either phrasing connotes the same notion...the PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification.

(emphasis added) *In re. Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997) (a copy of which is attached to this Amendment).

The Applicant respectfully directs the Examiner's attention to page 23, lines 19-23 of the Specification where "balanced" array is defined:

[A] "balanced array where all the disks of the array have the same amount of information contained thereon, whether data or parity.... When a stripe is repeated multiple times across the disks, the disks are filled uniformly and, accordingly, all the disks may be of the same size, thereby providing a balanced array.

Given such definition, it is unreasonable to interpret "equal number of disk drives in each span of the array" as the same as Applicant's "balanced" array. The Applicant's defini-

tion makes clear that “balanced” relates to the amount of information contained on the disks, not the number of disks in spans. Since the Examiner’s interpretation contradicts the “interpretive guidance afforded by the applicant’s written description,” according to *In re Morris*, it is unreasonable.

The Applicant’s claim 1, representative of the other rejected claims, sets forth:

1. A method for enabling parity declustering in a balanced parity array of a storage system, where an operating system performs the method comprising the steps of:

combining a plurality of unbalanced stripe arrays to form the balanced array, each unbalanced stripe array having parity blocks on a set of storage devices that are disjoint from a set of storage devices storing data blocks; and

distributing assignment of storage devices to parity groups throughout the balanced array.

Burton discloses a system to create a “balanced” array where “balanced” is defined as “providing an equal number of disk drives in each span” of the array. *See* paragraph 0022. For example, Fig. 2 of Burton shows a “balanced” array with 256 disk drives, divided into 16 spans, each with 16 disks. *See* Fig 2 and paragraph 0020. A graphical user interface is provided so a user can assign disks to spans. *See* paragraph 0021. Attempts are made to minimize the number of spans needed and maximize the number disks assigned to each span . *See* paragraphs 22-25.

The Applicant respectfully urges that Burton is silent concerning the Applicant’s claimed “*combining a plurality of unbalanced stripe arrays to form the balanced array*.”

First, Burton provides absolutely no disclosure of forming a “balanced” array from “unbalanced” arrays. As described above, Burton defines “balanced” far differently than the Applicant, such that any facially similarity does not withstand closer inspection. The Applicant novelly claims “*combining a plurality of unbalanced stripe arrays to form the balanced array.*” In this way, arrays with differing amounts of information contained thereon, are combined to form a “balanced” array, according to Applicant’s definition of “balanced”, with all disks of the array having approximately the same amount of information contained thereon. In sharp contrast, Burton merely moves disks between “spans,” so equal numbers of disks are in each span. No attention is paid to the amount of information stored on arrays or spans and no suggestion is made to “balance” amounts of information stored.

Second, regardless of the definition of “balanced”, Burton is silent concerning Applicant’s *combining a plurality* of arrays to form another array. Burton merely discloses moving disks between “spans.” Moving disks from one span to another span is far different than combining multiple arrays to form a single array. Accordingly, Burton does not anticipate the Applicant’s claims.

For the reasons discussed above, the Applicant respectfully urges that Burton is legally insufficient to anticipate the present claims under 35 U.S.C. §102 because of the absence of the Applicant’s claimed novel “*combining a plurality of unbalanced stripe arrays to form the balanced array.*”

Claim Rejections – 35 U.S.C. §103

At paragraph 4 of the Final Office Action, claims 2 and 4-6 were rejected under 35 U.S.C. §103(a) as being unpatentable over Burton in view of US Patent No. 5,862,158 issued to Baylor et al. (hereinafter “Baylor”).

At paragraph 5 of the Final Office Action, claims 7 and 13 were rejected under 35 U.S.C. §103(a) as being unpatentable over Burton in view of Baylor, in further view of US Patent No. 3,993,862 issued to Karr.

The Applicant respectfully notes that claims 2, 4-7, and 13 are dependent claims that depend from independent claims which are believed to be in condition for allowance. Accordingly, claims 2, 4-7, and 13 are also believed to be in condition for allowance.

In the event that the Examiner deems personal contact desirable in the disposition of this case, the Examiner is encouraged to call the undersigned attorney at (617) 951-3078.

All independent claims are believed to be in condition for allowance.

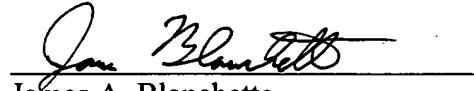
All dependent claims are believed to be dependent from allowable independent claims.

The Applicant respectfully solicits favorable action.

PATENTS
112056-0015
P01-1172

Please charge any additional fee occasioned by this paper to our Deposit Account
No. 03-1237.

Respectfully submitted,


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